

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Component **Natural Gas Engine**

PETRO CANADA DURON GEO LD 15W40 (30

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

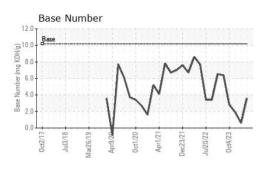
Fluid Condition

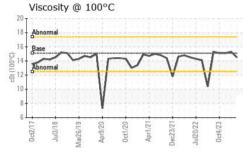
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| 30 QTS) | | #2017 Jul201 | Mar2019 Apr2020 Oct | 2020 Apr2021 Dec2021 Jul2022 | Oct2023 | |
|---------------|----------|--------------|---------------------|------------------------------|-------------|-------------|
| SAMPLE INFOR | MATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | GFL0101757 | GFL0090071 | GFL0090116 |
| Sample Date | | Client Info | | 29 Mar 2024 | 02 Nov 2023 | 12 Oct 2023 |
| Machine Age | mls | Client Info | | 191200 | 190800 | 16080 |
| Oil Age | mls | Client Info | | 600 | 600 | 600 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | ABNORMAL | ABNORMAL |
| CONTAMINAT | ION | method | limit/base | current | history1 | history2 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| WEAR METAL | S | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >50 | 15 | 6 2 | 5 2 |
| Chromium | ppm | ASTM D5185m | >4 | 1 | 1 5 | 11 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 2 | 2 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >9 | 2 | 5 | 5 |
| Lead | ppm | ASTM D5185m | >30 | 8 | 16 | 13 |
| Copper | ppm | ASTM D5185m | >35 | 0 | 3 | 2 |
| Tin | ppm | ASTM D5185m | >4 | <1 | 1 | 1 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 50 | 14 | 5 | 4 |
| Barium | ppm | ASTM D5185m | 5 | 0 | 0 | 10 |
| Molybdenum | ppm | ASTM D5185m | 50 | 58 | 68 | 62 |
| Manganese | ppm | ASTM D5185m | 0 | 1 | 2 | 2 |
| Magnesium | ppm | ASTM D5185m | 560 | 652 | 730 | 639 |
| Calcium | ppm | ASTM D5185m | 1510 | 1793 | 1890 | 1772 |
| Phosphorus | ppm | ASTM D5185m | 780 | 845 | 868 | 895 |
| Zinc | ppm | ASTM D5185m | 870 | 1041 | 1162 | 1061 |
| Sulfur | ppm | ASTM D5185m | 2040 | 2647 | 2353 | 2410 |
| CONTAMINAN | ITS | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >+100 | 4 | 17 | 17 |
| Sodium | ppm | ASTM D5185m | | 19 | 26 | 17 |
| Potassium | ppm | ASTM D5185m | - | 34 | 1 | 4 |
| INFRA-RED | | method | limit/base | | history1 | history2 |
| Soot % | % | *ASTM D7844 | | 0 | 0.1 | 0 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 12.8 | 18.2 | 13.9 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 26.4 | 34.2 | 30.1 |
| FLUID DEGRAI | DATION | method | limit/base | current | history1 | history2 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 23.5 | 38.7 | 30.2 |
| | | | | | | |



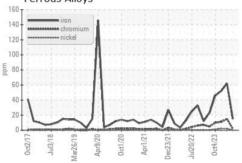
OIL ANALYSIS REPORT

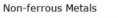


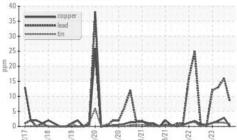


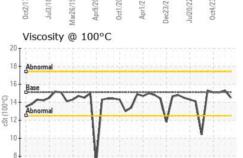
| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.1 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |
| FLUID PROPE | ERTIES | method | limit/base | current | history1 | history2 |
| Visc @ 100°C | cSt | ASTM D445 | 15.1 | 14.5 | 15.3 | 15.1 |
| GRAPHS | | | | | | |

Ferrous Alloys









Apr1/21

Received

Diagnosed

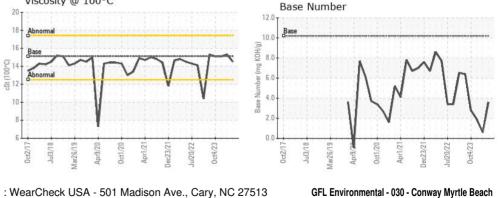
Tested

ul20/22 -0ct4/23 .

: 02 Apr 2024

: 03 Apr 2024

Dec23/21



3010 HWY 378 Conway, SC : 03 Apr 2024 - Wes Davis US 29527 Contact: ARCILIO RUEZ aruiz@gflenv.com Т: F:



Test Package : FLEET Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Mar26/19

Apr9/20

Jul3/18

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Laboratory

Sample No.

Lab Number : 06136051

Unique Number : 10955516

0ct2/17

: GFL0101757